

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

3. (amended) A method according to claim 1 [or 2], wherein said identification of an organism is the species identification or homology identification of an organism.

4. (amended) A method according to claim 1 [any of claims 1 to 3], wherein in step 1, a raw material labeled with a fluorescent marker is used for said random PCR to amplify DNA fragments with a fluorescent marker and a fluorescence labeled DNA is used as the standard DNA, and in step 3, said extraction from the identification dots is carried out using a image processing using the fluorescent markers carried by the DNAs.

6. (amended) A method according to claim 1 [any of claims 1 to 5], wherein the identification dots which are obtained in step 3 are expressed by the coordinates of the temperature axis and the mobility axis in the case of temperature gradient gel electrophoresis (TGGE), and by the coordinates of the denaturant concentration axis and the mobility axis in the case of denaturant gradient gel electrophoresis (DGGE).

7. (amended) A method according to claim 1 [any claims 1 to 6], wherein said organism is a microorganism.